# Annual Route Report

2013 Operating Data

***Prepared for:***
**Performance Monitoring and External Relations Committee**

**Final**

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# Table of Contents

# Executive Summary

The Annual Route Report (formerly called the Route Performance Report) is published annually to inform Spokane Transit staff, the public, and Board of Directors of the performance of each route compared to three performance standards: Ridership, Equivalent Energy Consumption, and Fares. Customers expect Spokane Transit to provide reliable and convenient service in a courteous, cost-effective manner. For Spokane Transit to ensure the reliability, consistency, and proper development of its transit services, it must continually evaluate and understand the strengths and weaknesses of the products offered.

This year marks the 5th Annual Route Report and reflects Spokane Transit's ongoing commitment to monitor its performance to ensure the effectiveness and efficiency of Spokane Transit's 34 transit routes and to promote overall system improvement through careful measurement of established performance benchmarks and standards listed in this report.

The report is organized into three sections. Section I contains 2013 route performance results, analysis of consecutive years (2013/2012) and identifies which routes fall below the minimum standards for those years. Section II contains route indicators including route length, seated capacity, revenue hours, revenue miles, unallocated cost, average passenger trip length, passenger boardings, passenger miles, and annual fare revenue. Section III contains information related to the Universal Transit Access Pass (UTAP) program. The UTAP program enables members of an organization access to fixed-route transit service through a contract with STA. Service is paid for based on the actual fare pass usage of its members. Finally, the Appendix contains tables that summarize productivity and interesting charts summarizing the performance results of each section of the report.

The year 2013 represents the third highest ridership year in Spokane Transit's history. Overall, 14 routes evaluated met all three performance standards, 16 routes were unable to meet one of the three performance standards, three routes were unable to meet two standards, and one route did not meet any of the three standards. It is important to note that the lone route unable to meet any of the standards, Route 34, did not operate for the entire year in 2013. According to Annex I.4 contained in **Connect Spokane: A Comprehensive Plan for Public Transportation**, a partial year of operation (e.g. if a route begins operation in September) will not be counted against a route's compliance with these standards. The most common performance standards not met were Ridership and Equivalent Energy Consumption. The energy standard will continue to be a challenge for some routes to meet as the personal automobile fleet traveling the nation's roadways continues to become more energy efficient.

Any route that falls below the minimum standard for any one of the three performance standards for two consecutive years will be considered out of compliance. These routes are placed on an out of compliance list followed by a remediation plan that states possible solutions in order to improve performance. The remediation plan may correspond with the Service Implementation Plan (now Section 5 of the current Transit Development Plan) where feasible while some routes will continue to be monitored even though they are out of compliance.

# Section I: Route Performance

## Route Performance Overview

In December 2009, the Spokane Transit Board of Directors adopted the **Fixed-Route Service Design Guidelines** to guide the planning, implementation, and monitoring of fixed-route transit service in order to steer Spokane Transit staff through the 2010/2011 service reductions. These guidelines and standards were ultimately merged into the Fixed Route element and Annex I Fixed-Route Performance Standards contained in **Connect Spokane: A Comprehensive Plan for Public Transportation** adopted by the Board of Directors in July of 2010.

An essential part of the required performance monitoring is to evaluate operating data for the prior year of service. This section uses operating data from 2013. As a snapshot of the system and individual routes, this report is an essential tool for evaluating and planning for improvements in transit service.

Routes are rated annually against three performance standards: Ridership, Comparable Energy Consumption, and Fares. Each of these standards has a benchmark score which is calculated annually. A route which meets a performance standard's benchmark in either or both of the previous two years is considered to meet that performance standard. (In other words, a single year of substandard performance is not considered a failure in this report.)

The Appendix shows a table comparing 2013 with 2012 and summarizes whether each route passed or was unable to meet a particular benchmark. Furthermore, it is noted under the Consecutive Years Analysis section whether a route did not meet a performance measure for consecutive years.

## Route Performance Standards

As stated in **Connect Spokane**, any route that falls below the minimum standard for any one of the three performance standards for two consecutive years will be considered out of compliance. The Consecutive Year Analysis section contains a list of routes out of compliance. New service will be evaluated following its development period, typically 18 to 24 months. A partial year of operation (e.g. if a route begins operating in September) will not be counted against a route's compliance with these standards.

The performance standards measure the success of the fixed-route service based upon the three performance standards. Routes are compared against annual benchmark scores set for

routes similar in service type and/or vehicle types. The service types[1] and performance standards used are explained below.

## Performance Standard I: Ridership

Ridership is a critical metric for evaluating the system's effectiveness to serve people and the places to which they travel. Spokane Transit may desire to serve a particular facility, location, or community, but the route may still fail to attract ridership. In such cases, it is important to identify why the route is not performing well and what steps can be taken to remediate the route. See Consecutive Year Analysis section for a remediation plan for routes out of compliance.

As stated in the **Connect Spokane**, one of the best indicators of potential performance is a route's relation to the CBD (Central Business District). A route which serves the CBD has more connectivity than other routes. Consequently, it must meet a higher expectation due to the downtown Plaza's finite number of bus bays and overall capacity. Accordingly, use of the Plaza's capacity should be focused on routes with a higher level of effectiveness in terms of ridership.

The metric used for ridership is Boardings per Revenue Hour. Revenue hours represent the hours the bus is in service. Boardings per Revenue Hour are calculated by dividing the annual boardings of a route by the annual revenue hours of that same route.

Ridership benchmarks are based upon the average Boardings per Revenue Hour for all basic routes that intersect the CBD.

Ridership benchmarks for specific service types are calculated as follows:

- Basic routes intersecting the CBD must meet a minimum ridership benchmark that is <u>one-half standard deviation</u> below the average of the basic CBD routes. In 2013 that average was 29.51 Boardings per Revenue Hour. This equates to a benchmark of 25.50 Boardings per Revenue Hour in 2013. It should be noted that this benchmark was the similar to 2012 (25.51).
- Basic routes NOT intersecting the CBD must meet a minimum ridership benchmark one-half that for basic routes that do intersect the CBD. This equates to a benchmark of 12.75 Boardings per Revenue Hour in 2013.
- Commuter Peak routes must meet a minimum ridership benchmark <u>one-half standard deviation</u> above the average of the basic routes. This equates to a benchmark of 33.52 Boardings per Revenue Hour in 2013. For routes that operate as a function of what would otherwise be out-of-service time on a route ("Commuter Peak – Subordinate") the standard is equal to one-third the Commuter Peak benchmark. For 2013, this equates to a benchmark of 11.17 Boardings per Revenue Hour. It should be noted that

[1] Connect Spokane defines the High Performance Transit Network (HTPN). Currently, Spokane Transit has no HTPN service so HTPN performance standards are omitted from this report.

Route 165 is now classified as Commuter Peak – Subordinate and is the only route classified as such.

## Performance Standard 2: Equivalent Energy Consumption

There is great potential in the use of mass transit over the personal automobile to conserve energy and lessen human impact on the environment. Typically, energy consumption is shown by the number of single-occupancy vehicle (SOV) trips reduced by the use of mass transit, but this measure does not take into account that a transit bus is much heavier than a personal vehicle and consumes more energy per vehicle mile.

The Equivalent Energy Consumption standard relates to the duration of a passenger's ride time on a vehicle. As stated in **Connect Spokane**, a bus route should at minimum perform equally to the private automobile in terms of energy consumed per mile traveled for each passenger. The energy consumption for each passenger mile of a route will vary by the typical vehicle size used for each route. Below is a table that shows typical vehicle types assigned to Spokane Transit for Basic and Commuter Routes and their required minimum average load factor. Basic Routes must meet an average load factor that results in the route being as energy efficient as a typical single occupancy vehicle (SOV). The benchmark for Commuter Routes is higher than that for Basic Routes and must be as energy efficient as the average-loaded private automobile.

**Table 1.1 - Minimum Average Load Factor Benchmark Scores**

| Average Load Factor Benchmarks | | |
|---|---|---|
| | Basic Routes | Commuter Peak Routes |
| Vehicle Type | 2013 | 2013 |
| 30' Bus | 5.72 | 8.86 |
| 35' Bus | 4.66 | 7.22 |
| 40' Bus | 4.74 | 7.34 |
| 60' Bus | 6.36 | 9.86 |

The average passenger load (load factor) of a route is calculated by dividing the annual passenger miles of a route by the annual platform miles of a route. Passenger miles are the cumulative sum of the distances ridden by each passenger while platform miles represent all miles the vehicle travels, both in- and out-of-service.

## Performance Standard 3: Fares

Spokane Transit collects fares in the form of cash, passes and institutional pass programs which Spokane Transit administers. Farebox recovery represents the revenue collected along a route as a percentage of the total cost of operating the route. Fares per passenger are not the same

for every route. Two routes with the same ridership could have very different farebox recovery ratios based on fare media and operating costs.

The Fares performance standard uses a route's farebox recovery ratio to show the relationship between fares collected versus the operating cost of a route. Farebox recovery ratio is calculated by dividing the annual fare revenue by the annual unallocated cost (the cost of the route and associated support). The benchmark which must be met or exceeded is equal to one-half the system-wide average (for revenue allocated to routes) farebox recovery ratio. The 2013 system average was 21.58%, creating a benchmark of 10.79%. The system average fare calculated for this measure does not incorporate fare revenue which cannot be confidently allocated to any route. It should be noted that the system average decreased from 22.48% in 2012 to 21.58% in 2013, a 4% decrease. This can be partly attributed to higher unallocated costs related to providing service. In 2013, additional revenue hours were required in order to improve reliability on several routes throughout the network. This trend will continue in the coming years as additional revenue hours will be incrementally invested in order to maintain effective service delivery.

## Summary of 2013 Route Performance

The following section outlines the performance of all routes subject to performance monitoring for 2013. A route will be considered to have been unable to meet a performance standard if it is not in compliance for two consecutive years. Please refer to the Appendix for a detailed breakdown of each of the three performance standards for all routes and for a table comparing 2013 with 2012 that summarizes whether each route passed or was unable to meet a particular benchmark for each year. Further detailed analysis is contained in the coming section titled Consecutive Year Analysis. This includes a watch list of routes that may require corrective action in the future. It should be noted that it will be difficult for some routes to meet the Equivalent Energy Consumption Standard due to the short route length thereby producing very low average trip lengths which produces lower annual passenger miles. Passengers can only travel limited distances on these routes. For example, the outbound distance for Route 1 is only 1.34 miles. Because the typical vehicle size on the route is a 30 foot bus, the benchmark is higher at 5.72. Furthermore, some routes have excess revenue hours because they take on more recovery/layover time for partner routes within the interline causing the partner routes to perform better. It is important to take this into deliberate consideration when proposing potential service changes that would improve performance.

## Fixed-Routes Unable to Meet All Three Standards

As stated earlier, Route 34 was unable to meet all three standards; however, it did not operate for the entire year in 2013. A partial year of operation (e.g. if a route begins operation in September) will not be counted against a route's compliance with the performance standards.

## Fixed-Routes Unable to Meet Two of Three Standards

Table 1.2 depicts the three routes unable to meet two of the three performance standards for 2013. Route 60 has shown four consecutive years of improvement with the energy standard; however, continues to underperform with the ridership standard (measured in terms of Boardings per Revenue Hour). Route 2 has been unable to meet two of three standards (Ridership, Energy) for four consecutive years but has shown minor improvements each year. Route 1 is new to this list as Boardings per Revenue Hour has been in decline for four consecutive years and the route was unable to meet the Ridership standard for the first time in 2013. It is important to note that Routes 23, 68, and 124 graduated from this list in 2013. Route 23 met the Ridership standard, Route 68 met the Fares standard, and Route 124 met the Energy standard.

**Table 1.2 Fixed-Routes Unable to Meet Two of Three Standards**

| Route | Route Name | Type | Performance Standards Not Met |
|---|---|---|---|
| **1** | Plaza/Arena | Basic | Ridership, Energy |
| **2** | Southside/Medical Shuttle | Basic | Ridership, Energy |
| **60** | Airport via Browne's Addition | Basic | Ridership, Energy |

## Fixed-Routes Unable to Meet One of Three Standards

Sixteen routes were unable to meet one of the three required performance standards in 2013 (up from 11 in 2012). These routes illustrate that a route's design does not always meet all performance standards. It is imperative to ensure continued monitoring of these routes so that steps can be taken, where possible, to improve their performance.

**Table 1.3 Fixed-Routes Unable to Meet One of Three Standards**

| Route | Route Name | Type | Performance Standard Not Met |
|---|---|---|---|
| **22** | Northwest Blvd | Basic | Ridership |
| **23** | Maple/Ash | Basic | Energy |
| **26** | Lidgerwood | Basic | Ridership |

| Route | Route Name | Type | Performance Standard Not Met |
|---|---|---|---|
| **28** | Nevada | Basic | Ridership |
| **33** | Wellesley | Basic | Energy |
| **42** | South Adams | Basic | Energy |
| **43** | Lincoln/37th Avenue | Basic | Energy |
| **62** | Medical Lake | Basic | Ridership |
| **68** | Cheney Local | Basic | Energy |
| **94** | East Fifth/Millwood | Basic | Ridership |
| **96** | Pines/Sullivan | Basic | Energy |
| **97** | South Valley | Basic | Energy |
| **98** | Liberty Lake Via Sprague | Basic | Energy |
| **124** | North Express | Commuter Peak | Ridership |
| **173** | VTC Express | Commuter Peak | Ridership |
| **174** | Liberty Lake Express | Commuter Peak | Ridership |

## Fixed-Routes Meeting All Three Standards

Table 1.4 indicates routes that met STA's standards for Ridership, Equivalent Energy Consumption, and Fares for 2013.

Routes 25 and 90 had increases in boardings compared to 2012 (+9,888 and +17,285). Route 27 recorded over 530,000 boardings in 2013 representing an increase of 6.79% over 2012. Route 61 also experienced growth with an increase of 10,411 boardings in 2013 over 2012 (+2.32%).

Although a route may meet all three standards, the route may still be a candidate for future revisions as the future High Performance Transit Network begins to take shape.

**Table 1.4 Fixed-Routes Meeting All Three Standards**

| Route | Route Name | Type |
|---|---|---|
| **20** | SFCC | Basic |
| **21** | West Broadway | Basic |
| **24** | Monroe | Basic |
| **25** | Division | Basic |
| **27** | Hillyard | Basic |
| **29** | SCC | Basic |
| **32** | Trent/Montgomery | Basic |
| **39** | Mission | Basic |
| **44** | 29th Avenue | Basic |
| **45** | Regal | Basic |
| **61** | Hwy 2 via Browne's Addition | Basic |

| Route | Route Name | Type |
|---|---|---|
| **66** | Cheney/EWU | Basic |
| **90** | Sprague | Basic |
| **165** | Cheney Express | Commuter Peak |

# Consecutive Year Analysis

Standards imply accountability, comparison, and remediation in the event of non-compliance. As stated earlier, any route that falls below the minimum standard for any one of the three performance standards for two consecutive years will be considered out of compliance. A partial year of operation (e.g. if a route begins operating in September) will not be counted against a route's compliance with these standards. This applies to Route 34 which began service in September 2013 and will not be listed below.

## Out of Compliance List

Table 1.5 shows the current watch list of routes out of compliance for two consecutive years. The "X" indicates what standard the route was unable to meet for consecutive years.

**Table 1.5 Out of Compliance (watch list)**

| Route | 2012 Standard Not Met | | | 2013 Standard Not Met | | |
|---|---|---|---|---|---|---|
| | Ridership | Energy | Fares | Ridership | Energy | Fares |
| **1** | | X | | | X | |
| **2** | X | X | | X | X | |
| **23** | | X | | | X | |
| **28** | X | | | X | | |
| **42** | | X | | | X | |
| **43** | | X | | | X | |
| **60** | X | X | | X | X | |
| **62** | X | | | X | | |
| **68** | | X | | | X | |
| **94** | X | | | X | | |
| **96** | | X | | | X | |
| **97** | | X | | | X | |
| **98** | | X | | | X | |
| **124** | X | | | X | | |
| **173** | X | | | X | | |
| **174** | X | | | X | | |

It should be noted that Routes 1, 2, 23, 60, 62, 96, 97, and 124 have not met the standards (X) above for four consecutive years.

## Remediation Plan

Table 1.6 indicates the plan of remediation related to each of the routes that did not meet one or more standard for consecutive years.

**Table 1.6 Remediation Plan**

| Route | Remediation Plan |
|---|---|
| **1** | Continue to monitor and work with Downtown Spokane Partnership, the third party in the contract with STA and the Public Facilities District, to re-invigorate marketing to downtown businesses that benefit from this service. Consider modifying energy benchmark to include hybrid vehicles. |
| **2** | Solution may require extending the route to the pedestrian bridge that is planned to connect to the South University District. This likely cannot be addressed until the September 2017 service change when the bridge project is estimated to be completed. Consider modifying energy benchmark to include hybrid vehicles. |
| **23** | Continue to monitor. Increased frequency during the weekday mid-day period boosted ridership in late 2013. The route also improved from 3.50 to 4.14, inching closer to the Energy benchmark of 4.74. Future plans to extend to Indian Trail end of line on all trips (weekdays and weekends) would likely yield longer passenger trips thereby improving the performance for the Energy standard. However, the change likely would not take place until the September 2016 service change (pending additional funding and public outreach). |
| **28** | Continue to monitor. Route will be extended to the end of line on weeknights with the May 2014 service change. Future plans to extend to the end of line Saturday nights and all day Sunday/Holidays will likely improve performance for the Ridership standard. However, the change likely would not take place until the September 2015 service change (pending additional funding and public outreach). |
| **42** | Continue to monitor. Energy standard will be difficult to meet due to the short route length thereby producing very low average trip lengths which produces lower annual passenger miles. Passengers can only travel limited distances on this route. |
| **43** | Continue to monitor. Majority of the ridership is concentrated in the lower South Hill area producing very low average trip lengths. |
| **60** | Continue to monitor. Route serves the airport (a major regional destination) and likely would perform worse if it did not travel through Browne's Addition. Boardings per Revenue Hour results have improved for three straight years (15.63 in 2010; 17.00 in 2011; 18.58 in 2012) despite declining passenger enplanements at the airport but have plateaued in 2013 at 18.56. |
| **62** | Continue to monitor. Current service was approved with the September 2011 service change. As stated in Board Resolution No. 675-11, "the Route 62 final recommendation is an exception to the Board's Comprehensive Plan policy to |

| Route | Remediation Plan |
|---|---|
| | provide Basic Interurban service at a minimum frequency on weekdays (FR Policy 4.0) and will not likely adhere to approved performance standards." The route does meet the Energy and Fares benchmarks. Given the current route structure, adding more service (revenue hours) would reduce the route's performance compared to the standards, with the likelihood of unsuccessfully meeting all three standards. The construction of the West Plains Transit Center located at Exit 272 of I-90 (currently funded for design only) would address this issue by creating a new route that would serve Medical Lake with a Basic Interurban route that has lower productivity standards because the route would not travel to the CBD. |
| **68** | Continue to monitor. Boardings per Revenue Hour improved to 18.93 (up from 14.70 in 2012). Energy standard will be difficult to meet due to the short route length thereby producing very low average trip lengths which produces lower annual passenger miles. Passengers can only travel limited distances on this route. |
| **94** | Continue to monitor. Revenue hours were added in 2013 in order to improve reliability on weekdays. As a result, Boardings Per Revenue hours decreased from 24.44 to 22.95. A permanent end of line layover location needs to be identified in 2014 in order to reduce uncertainty. |
| **96** | Continue to monitor. Meets the Ridership and Fare standards. Energy performance improved to 3.75 (up from 3.40 in 2012). |
| **97** | Continue to monitor. Route 97 narrowly missed the Energy benchmark (4.66) and came in at 4.63 which would have removed the route from the Out of Compliance list. |
| **98** | Continue to monitor. Showed slight improvements in Ridership and Energy. |
| **124** | Continue to monitor. Boardings per Revenue Hour results have improved for four straight years (12.17 in 2010; 17.54 in 2011; 22.96 in 2012; 23.18 in 2013). The strategy to reduce unproductive revenue hours by eliminating the AM outbound Plaza trips and the PM inbound Hastings Park & Ride trips will continue to be explored and should improve Boardings per Revenue Hour results. Two AM outbound trips will be eliminated with the May 2014 service change. Route 124 also met the Energy benchmark in 2013 after three consecutive years of failure. |
| **173** | Continue to monitor. Interlining with select inbound Route 66 trips to outbound Route 173 trips should attract more ridership thereby improving performance. |
| **174** | Continue to monitor. September 2013 service improvements designed to improve connectivity to/from other routes at Mirabeau Park & Ride should help improve productivity in 2014; however, additional revenue hours were added in May 2014 in order to improve PM peak reliability. Interlining inbound trips with select outbound Route 66 trips should also assist with improving productivity. |

# Section II: Route Indicators

The tables contained in Section II show various annual indicators related to 2013. These indicators include route length, seated capacity, revenue hours, revenue miles, unallocated cost, average passenger trip length, passenger boardings, passenger miles, and annual fare revenue by route.

## Route Indicator Definitions

| Indicator | Description |
|---|---|
| **Route Length** | One-way distance of the dominant outbound pattern during the weekday peak period. It should be noted that some routes have many different pattern to which the bus travels. |
| **Seated Capacity** | The number of seats provided on the coach size and type typically used on the route. |
| **Revenue Hours** | The number of hours buses travel during scheduled trips for a given route. This time does not include deadhead time. |
| **Revenue Miles** | The number of miles buses travel during scheduled trips for a given route. This does not include deadhead miles. |
| **Unallocated Cost** | Expenses associated with fixed-route operations only. This includes the benefits and wages of coach operators, maintenance, and supervisors. This also includes fuel costs. This is calculated by multiplying the route revenue hours by the unallocated cost per hour (obtained from Finance). For the year 2013, the unallocated cost per hour was $100.40. |
| **Average Passenger Trip Length** | The average distance ridden for an unlinked passenger trip computed as passenger miles traveled divided by unlinked passenger trips. |
| **Passenger Boardings** | A single passenger getting on a transit vehicle. |
| **Passenger Miles** | The cumulative sum of the distances ridden by each passenger. |
| **Fare Revenue** | All income received directly from passengers, paid either in cash or through pre-paid tickets, passes, etc. |

**Table 2.1 Route Length, Seated Capacity, Revenue Hours, Revenue Miles, and Unallocated Costs**

| Route | Route Name | One Way Route Length | Typical Seated Capacity | Annual Revenue Hours | Annual Revenue Miles | Annual Unallocated Cost |
|---|---|---|---|---|---|---|
| 1 | Plaza/Arena | 1.34 | 26 | 5,159 | 31,827 | $ 518,007.78 |
| 2 | Southside Medical Shuttle | 2.86 | 26 | 11,081 | 64,340 | $ 1,112,577.58 |
| 20 | SFCC | 3.98 | 39 | 8,063 | 129,051 | $ 809,509.14 |
| 21 | West Broadway | 3.04 | 39 | 9,105 | 61,811 | $ 914,158.06 |
| 22 | Northwest Boulevard | 8.39 | 39 | 12,384 | 153,292 | $ 1,243,312.44 |
| 23 | Maple/Ash | 9.19 | 39 | 8,865 | 112,255 | $ 890,066.08 |
| 24 | Monroe | 5.12 | 39 | 16,349 | 164,775 | $ 1,641,449.64 |
| 25 | Division | 9.05 | 39 | 28,822 | 338,642 | $ 2,893,744.86 |
| 26 | Lidgerwood | 9.27 | 39 | 12,279 | 151,223 | $ 1,232,776.46 |
| 27 | Hillyard | 10.22 | 39 | 17,052 | 207,823 | $ 1,711,999.72 |
| 28 | Nevada | 8.82 | 39 | 11,725 | 144,474 | $ 1,177,199.04 |
| 29 | SCC | 4.18 | 39 | 8,398 | 76,435 | $ 843,208.40 |
| 32 | Trent/Montgomery | 7.46 | 32 | 8,338 | 139,473 | $ 837,158.29 |
| 33 | Wellesley | 8.87 | 39 | 28,558 | 384,558 | $ 2,867,246.29 |
| *34 | Freya | 6.28 | 39 | 5,841 | 56,479 | $ 586,402.26 |
| 39 | Mission | 7.14 | 32 | 8,530 | 98,973 | $ 856,422.04 |
| 42 | South Adams | 2.08 | 32 | 4,494 | 33,396 | $ 451,198.60 |
| 43 | Lincoln/37th Avenue | 6.74 | 39 | 9,275 | 123,399 | $ 931,214.02 |
| 44 | 29th Avenue | 4.16 | 39 | 12,430 | 155,524 | $ 1,247,932.84 |
| 45 | Regal | 6.65 | 39 | 12,435 | 158,824 | $ 1,248,452.92 |
| 60 | Airport via Browne's Addition | 7.50 | 32 | 8,837 | 135,421 | $ 887,195.64 |
| 61 | Hwy 2 via Browne's Addition | 13.38 | 39 | 14,688 | 283,565 | $ 1,474,711.34 |
| 62 | Medical Lake | 19.82 | 39 | 3,471 | 82,689 | $ 348,522.54 |
| 66 | Cheney/EWU | 16.90 | 62 | 20,065 | 525,841 | $ 2,014,547.08 |
| 68 | Cheney Local | 6.42 | 32 | 6,905 | 83,984 | $ 693,258.99 |
| 90 | Sprague | 7.82 | 39 | 23,260 | 301,900 | $ 2,335,335.12 |
| 94 | East Fifth/Millwood | 10.92 | 39 | 13,894 | 189,934 | $ 1,395,000.77 |
| 96 | Pines/Sullivan | 10.45 | 32 | 11,637 | 173,060 | $ 1,168,378.90 |
| 97 | South Valley | 9.47 | 32 | 10,516 | 168,160 | $ 1,055,806.40 |
| 98 | Liberty Lake via Sprague | 9.01 | 32 | 11,233 | 161,486 | $ 1,127,799.22 |
| 124 | North Express | 8.87 | 39 | 4,353 | 69,906 | $ 437,073.33 |
| 165 | Cheney Express | 20.64 | 62 | 2,870 | 62,967 | $ 288,141.98 |
| 173 | VTC Express | 9.91 | 39 | 3,484 | 71,125 | $ 349,792.60 |
| 174 | Liberty Lake Express | 18.54 | 39 | 8,674 | 236,094 | $ 870,881.65 |

* Route 34 began service in September 2013 (did not operate for a full year). Route 34 operates along existing City Loop segment between SCC and South Hill Park & Ride. As a result, the one way route lengths decreased on Routes 33 and 44.

**Table 2.2 Average Passenger Trip Length, Passenger Boardings, Passenger Miles, and Fare Revenue**

| Route | Route Name | Average Passenger Trip Length | Annual Passenger Boardings | Annual Passenger Miles | Annual Fare Revenue |
|---|---|---|---|---|---|
| 1 | Plaza/Arena | 0.79 | 127,333 | 100,947 | $101,412.94 |
| 2 | Southside Medical Shuttle | 1.40 | 197,142 | 276,576 | $132,047.76 |
| 20 | SFCC | 3.33 | 360,999 | 1,201,066 | $228,841.93 |
| 21 | West Broadway | 1.56 | 261,836 | 407,338 | $177,574.77 |
| 22 | Northwest Boulevard | 2.84 | 312,738 | 887,222 | $231,928.97 |
| 23 | Maple/Ash | 2.32 | 226,926 | 526,556 | $181,179.03 |
| 24 | Monroe | 1.89 | 704,830 | 1,332,646 | $518,094.59 |
| 25 | Division | 3.66 | 1,043,950 | 3,822,244 | $834,667.32 |
| 26 | Lidgerwood | 3.74 | 310,888 | 1,164,253 | $234,858.69 |
| 27 | Hillyard | 3.64 | 530,555 | 1,933,063 | $413,127.79 |
| 28 | Nevada | 3.44 | 290,675 | 999,420 | $235,342.96 |
| 29 | SCC | 2.64 | 254,994 | 673,370 | $167,032.63 |
| 32 | Trent/Montgomery | 4.29 | 203,123 | 870,675 | $136,803.42 |
| 33 | Wellesley | 2.75 | 696,560 | 1,913,693 | $498,165.52 |
| *34 | Freya | 1.82 | 72,014 | 131,004 | $48,354.27 |
| 39 | Mission | 2.46 | 271,124 | 667,096 | $196,049.63 |
| 42 | South Adams | 1.05 | 134,967 | 141,430 | $89,293.48 |
| 43 | Lincoln/37th Avenue | 2.45 | 239,239 | 585,293 | $184,381.90 |
| 44 | 29th Avenue | 2.62 | 417,103 | 1,090,763 | $303,314.17 |
| 45 | Regal | 2.97 | 409,430 | 1,216,450 | $320,975.53 |
| 60 | Airport via Browne's Addition | 2.80 | 164,001 | 458,664 | $115,250.51 |
| 61 | Hwy 2 via Browne's Addition | 6.51 | 449,702 | 2,926,485 | $324,729.20 |
| 62 | Medical Lake | 12.55 | 49,432 | 620,282 | $49,002.18 |
| 66 | Cheney/EWU | 14.33 | 718,874 | 10,304,504 | $546,972.28 |
| 68 | Cheney Local | 2.01 | 130,720 | 262,723 | $82,550.18 |
| 90 | Sprague | 4.23 | 1,038,729 | 4,391,094 | $727,250.12 |
| 94 | East Fifth/Millwood | 4.19 | 318,865 | 1,337,111 | $237,574.17 |
| 96 | Pines/Sullivan | 3.72 | 185,641 | 690,477 | $129,065.20 |
| 97 | South Valley | 4.00 | 204,054 | 816,733 | $142,387.62 |
| 98 | Liberty Lake via Sprague | 3.17 | 225,065 | 712,963 | $166,563.82 |
| 124 | North Express | 6.52 | 100,895 | 657,907 | $119,801.46 |
| 165 | Cheney Express | 13.78 | 59,594 | 820,814 | $53,395.40 |
| 173 | VTC Express | 8.81 | 95,783 | 843,392 | $89,404.18 |
| 174 | Liberty Lake Express | 12.85 | 246,203 | 3,160,655 | $283,446.90 |

* Route 34 began service in September 2013 (did not operate for a full year). Route 34 operates along existing City Loop segment between SCC and South Hill Park & Ride.

# Section III: Universal Transit Access Pass (UTAP)

This section is intended to make available the going rates for services provided under the Universal Transit Access Pass (UTAP) Program effective July 1, 2014.

According to Spokane Transit's Tariff Policy, UTAP is an annual program made available on a contractual basis in which all members of an organization have unlimited access to STA services. The organization pays a fee that allows all identified members of their organization to use STA services for the contracted time period. Eligible participants must be identifiable by an identification card that is readable by STA fare collection equipment. The number of these programs is dependent on the capacity of STA's fare collection equipment.

The contract price is based on each unlinked trip taken by members of the program. The charge for each unlinked trip is calculated based on an established rate for each route in STA's system. A rate sheet for each route is published annually and included in the annual contract update.

The participating organization is billed monthly for the previous month's trips. However, in order to allow participating organizations to budget, contracts will also include a "not to exceed" total price for an annual contract. The "not to exceed" fee will be calculated by STA prior to each contract period. Actual monthly ridership may result in the cost of the contract to be lower than the "not to exceed" fee.

## UTAP Rates Calculation

Overall, the UTAP direct utility rates are based on the direct expenses required to provide a typical unlinked passenger trip by each route, applying direct operating expenses to the seated capacity of buses in service. This cost per seat mile calculated for each route is applied to the average passenger trip length to arrive at the expenses directly utilized by a passenger. Additionally, a base rate is applied uniformly to all routes that takes into account the expenses incurred in directly administering fixed-route operations, including dispatching, road supervisors and scheduling. The base utility rate calculation for 2013 is shown below.

$$\boldsymbol{Base\ Utility\ Rate\ (B)} = \frac{Base\ Expenses}{Passengers} = \frac{\$3{,}487{,}250}{11{,}087{,}049} = \frac{\$0.31}{passenger}$$

There are several steps and many variables that are used to generate each route's direct utility rate. The first step is to determine direct expenses for each route by applied uniform direct costs per revenue hour and revenue mile commensurate on actual revenue hours and revenue miles operated in a year. The common inputs for this variable are shown below using 2013

data. Route-specific revenue hours and revenue miles data for 2013 can be found in Section II of this report.

$$\boldsymbol{Direct\ Cost\ per\ Revenue\ Hour\ (R)} = \frac{Direct\ Operating\ Expenses}{Revenue\ Hours} = \frac{\$26{,}755{,}873}{383{,}357} = \frac{\$69.79}{revenue\ hour}$$

$$\boldsymbol{Direct\ Cost\ per\ Revenue\ Mile\ (M)} = \frac{Direct\ Maintenance\ Expenses}{Revenue\ Miles} = \frac{\$8{,}246{,}831}{5{,}317{,}034} = \frac{\$1.55}{mile}$$

$$\boldsymbol{Direct\ Route\ Expenses\ (D_n)} = \boldsymbol{R} \times Route\ Revenue\ Hours + \boldsymbol{M} \times Route\ Revenue\ Miles$$

Next, route expenses are applied to the seat miles provided by each route based upon the total revenue miles traveled for each route multiplied by the seated capacity of the typical coach size and type used on a route. Route-specific seated capacity for 2013 can be found in Section II of this report.

$$\boldsymbol{Route\ Seat\ Miles\ (S_n)} = Route\ Revenue\ Miles\ \times\ Route\ Seated\ Capacity$$

$$\boldsymbol{Route\ Direct\ Cost\ per\ Seat\ Mile\ (C_n)} = \frac{\boldsymbol{D_n}}{\boldsymbol{S_n}}$$

Finally, the direct utility rate is determined by multiplying the direct cost per seat-mile by the average passenger trip length calculated for that route. Average passenger trip length by route for 2013 is found in Section II of this report.

$$\boldsymbol{Route\ Direct\ Utility\ Rate\ (U_n)} = \boldsymbol{C_n} \times Route\ Average\ Passenger\ Trip\ Length$$

The combination of direct utility rate ($U_n$) and base utility rate ($B$) are capped to not exceed the cost of an adult single ride fare of $1.50. Based upon 2013, the direct utility rates for Route 62 Medical Lake and 174 Liberty Lake Express were capped at $1.19 in accordance with this methodology.

# UTAP Rates Schedule

Based on the preceding variables and data for calendar year 2013, the UTAP direct utility rates effective July 1, 2014 are published below.

**Table 3.1 Direct Utility Rate - Effective July 1, 2014**

| Route | Route Name | Direct Utility Rate (per Boarding) |
|---|---|---|
| 1 | Plaza/Arena Shuttle | $ 0.39 |
| 2 | Southside Medical Shuttle | $ 0.73 |
| 20 | SFCC | $ 0.50 |
| 21 | West Broadway | $ 0.47 |
| 22 | Northwest Boulevard | $ 0.52 |
| 23 | Maple/Ash | $ 0.42 |
| 24 | Monroe | $ 0.41 |
| 25 | Division | $ 0.70 |
| 26 | Lidgerwood | $ 0.69 |
| 27 | Hillyard | $ 0.68 |
| 28 | Nevada | $ 0.64 |
| 29 | SCC | $ 0.62 |
| 32 | Trent/Montgomery | $ 0.77 |
| 33 | Wellesley | $ 0.47 |
| 34 | Freya | $ 0.41 |
| 39 | Mission | $ 0.58 |
| 42 | South Adams | $ 0.36 |
| 43 | Lincoln/37th | $ 0.43 |
| 44 | 29th Ave | $ 0.48 |
| 45 | Regal | $ 0.53 |
| 60 | Airport via Browne's Addition | $ 0.53 |
| 61 | Airway Heights via Browne's Addition | $ 0.86 |
| 62 | Medical Lake | $ 1.19 |
| 66 | Cheney/EWU | $ 0.97 |
| 68 | Cheney Local | $ 0.46 |
| 90 | Sprague | $ 0.75 |
| 94 | East Central/Millwood | $ 0.72 |
| 96 | Pines/Sullivan | $ 0.73 |
| 97 | South Valley | $ 0.74 |
| 98 | Liberty Lake via Sprague | $ 0.63 |
| 124 | North Express | $ 0.99 |
| 165 | Cheney Express | $ 1.05 |
| 173 | VTC Express | $ 1.12 |
| 174 | Liberty Lake Express via Mirabeau | $ 1.19 |
| X | New or Special Event Route | $ 0.67 |
| B | Base Utility Rate | $ 0.31 |

# Appendix

## Section I

### 2013 Route Performance Results

| Route | Route Name | Ridership | | Energy | | Fares | |
|---|---|---|---|---|---|---|---|
| | | Benchmark | Actual | Benchmark | Actual | Benchmark | Actual |
| 1 | Plaza/Arena | 25.50 | 24.68 | 5.72 | 2.97 | 10.79% | 19.58% |
| 2 | Southside Medical Shuttle | 25.50 | 17.79 | 5.72 | 4.20 | 10.79% | 11.87% |
| 20 | SFCC | 25.50 | 44.77 | 4.74 | 9.17 | 10.79% | 28.27% |
| 21 | West Broadway | 25.50 | 28.76 | 4.74 | 6.40 | 10.79% | 19.42% |
| 22 | Northwest Boulevard | 25.50 | 25.25 | 4.74 | 5.56 | 10.79% | 18.65% |
| 23 | Maple/Ash | 25.50 | 25.60 | 4.74 | 4.14 | 10.79% | 20.36% |
| 24 | Monroe | 25.50 | 43.11 | 4.74 | 7.61 | 10.79% | 31.56% |
| 25 | Division | 25.50 | 36.22 | 4.74 | 10.22 | 10.79% | 28.84% |
| 26 | Lidgerwood | 25.50 | 25.32 | 4.74 | 7.15 | 10.79% | 19.05% |
| 27 | Hillyard | 25.50 | 31.11 | 4.74 | 8.86 | 10.79% | 24.13% |
| 28 | Nevada | 25.50 | 24.79 | 4.74 | 6.56 | 10.79% | 19.99% |
| 29 | SCC | 25.50 | 30.36 | 4.74 | 8.39 | 10.79% | 19.81% |
| 32 | Trent/Montgomery | 12.75 | 24.36 | 4.66 | 5.65 | 10.79% | 16.34% |
| 33 | Wellesley | 12.75 | 24.39 | 4.74 | 4.66 | 10.79% | 17.37% |
| *34 | Freya | 12.75 | 12.33 | 4.74 | 2.17 | 10.79% | 8.25% |
| 39 | Mission | 25.50 | 31.78 | 4.66 | 6.41 | 10.79% | 22.89% |
| 42 | South Adams | 25.50 | 30.03 | 4.66 | 4.18 | 10.79% | 19.79% |
| 43 | Lincoln/37th Avenue | 25.50 | 25.79 | 4.74 | 4.51 | 10.79% | 19.80% |
| 44 | 29th Avenue | 25.50 | 33.56 | 4.74 | 7.00 | 10.79% | 24.31% |
| 45 | Regal | 25.50 | 32.93 | 4.74 | 7.13 | 10.79% | 25.71% |
| 60 | Airport via Browne's Addition | 25.50 | 18.56 | 4.66 | 3.32 | 10.79% | 12.99% |
| 61 | Hwy 2 via Browne's Addition | 25.50 | 30.62 | 4.74 | 9.69 | 10.79% | 22.02% |
| 62 | Medical Lake | 25.50 | 14.24 | 4.74 | 7.42 | 10.79% | 14.06% |
| 66 | Cheney/EWU | 25.50 | 35.83 | 6.36 | 17.11 | 10.79% | 27.15% |
| 68 | Cheney Local | 12.75 | 18.93 | 4.66 | 2.33 | 10.79% | 11.91% |
| 90 | Sprague | 25.50 | 44.66 | 4.74 | 13.90 | 10.79% | 31.14% |
| 94 | East Fifth/Millwood | 25.50 | 22.95 | 4.74 | 6.39 | 10.79% | 17.03% |
| 96 | Pines/Sullivan | 12.75 | 15.95 | 4.66 | 3.75 | 10.79% | 11.05% |
| 97 | South Valley | 12.75 | 19.40 | 4.66 | 4.63 | 10.79% | 13.49% |
| 98 | Liberty Lake via Sprague | 12.75 | 20.04 | 4.66 | 3.66 | 10.79% | 14.77% |
| 124 | North Express | 33.52 | 23.18 | 7.34 | 7.61 | 10.79% | 27.41% |
| 165 | Cheney Express | 11.17 | 20.76 | 9.86 | 12.17 | 10.79% | 18.53% |
| 173 | VTC Express | 33.52 | 27.49 | 7.34 | 10.10 | 10.79% | 25.56% |
| 174 | Liberty Lake Express | 33.52 | 28.38 | 7.34 | 11.13 | 10.79% | 32.55% |

*New route that began service in September 2013 (did not operate entire year)

Did not meet benchmark

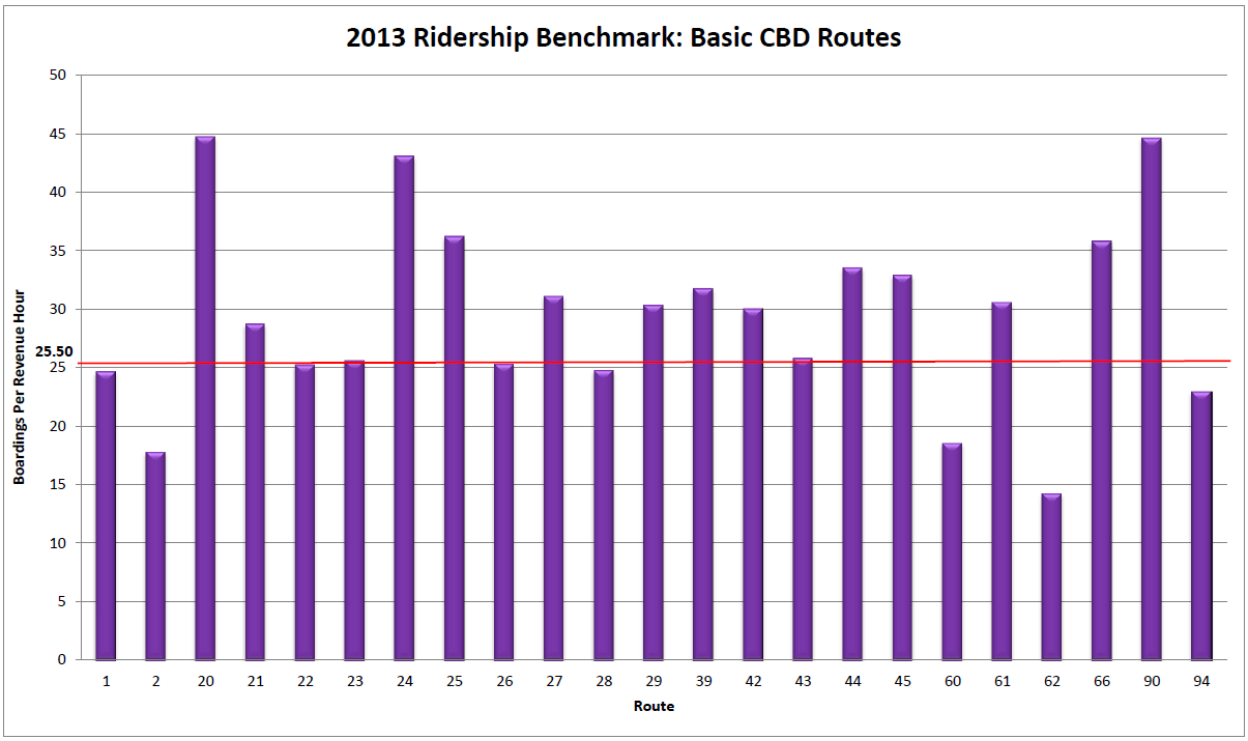
## 2013/2012 Route Performance Results Comparison

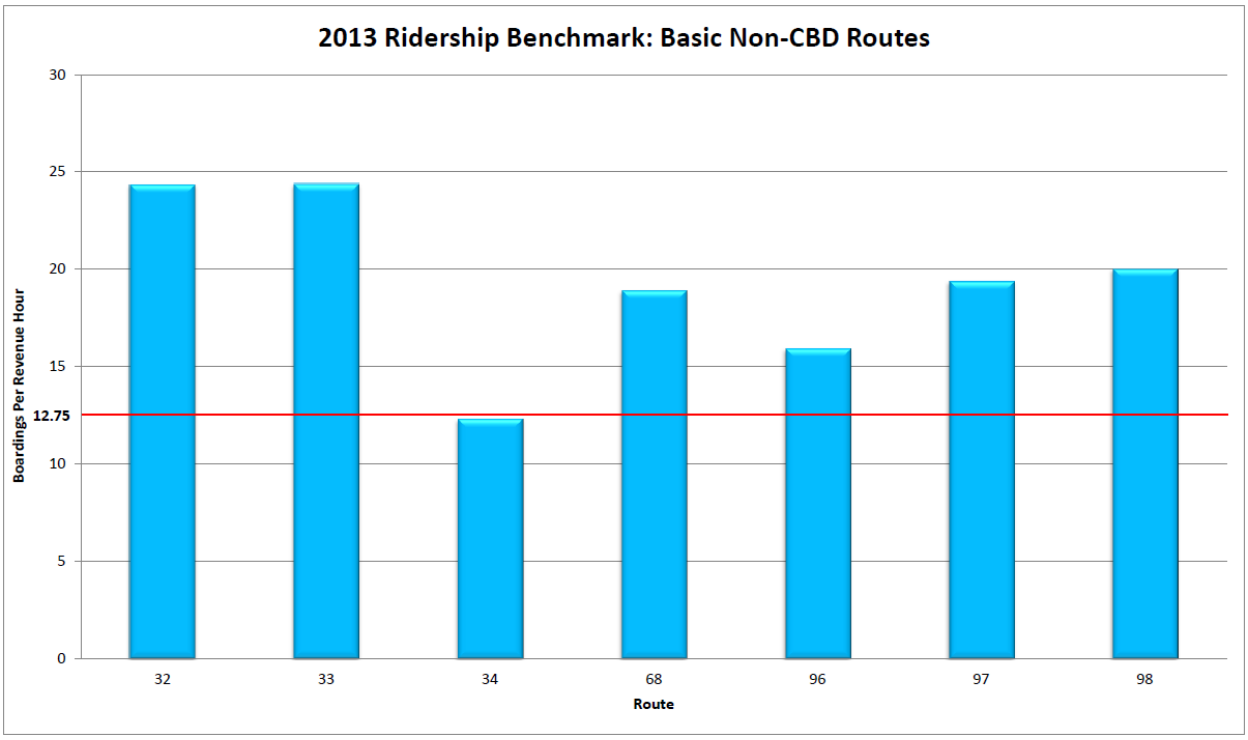
**2013/2012 Route Performance Results Comparison**

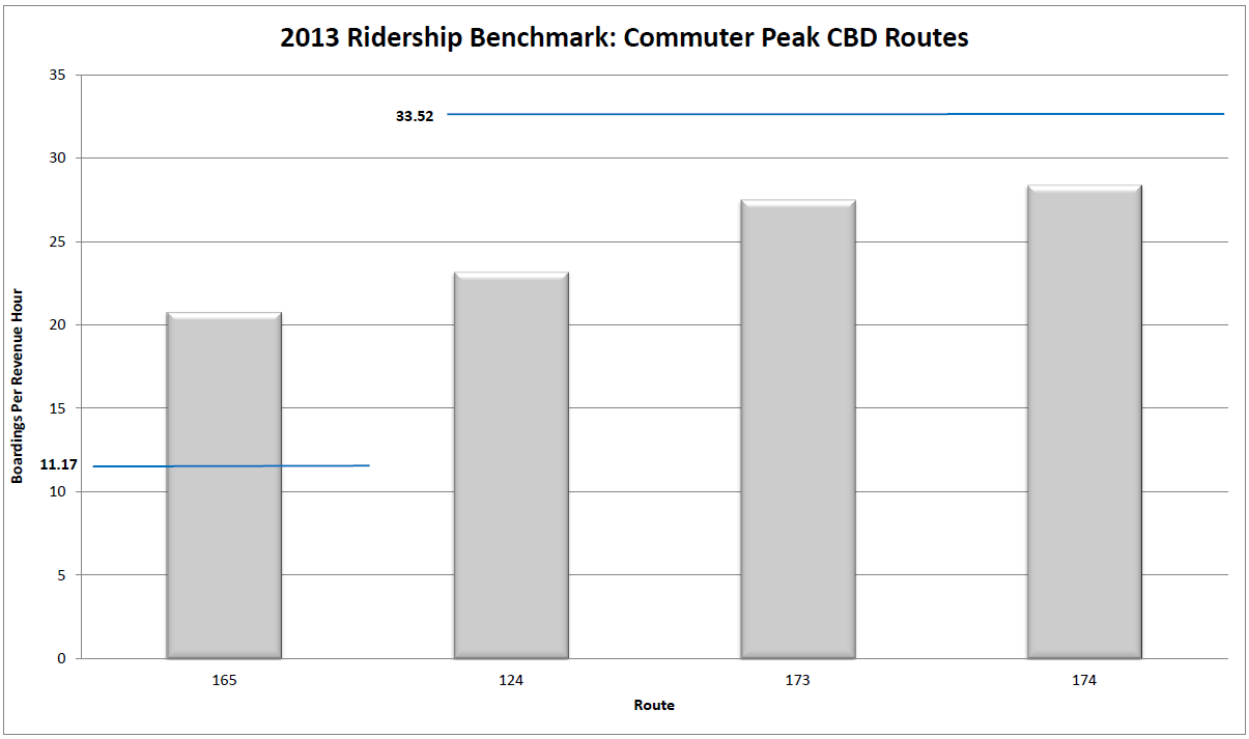
| Route | Route Name | Riderhip Benchmark 2013 | Riderhip Benchmark 2012 | Energy Benchmark 2013 | Energy Benchmark 2012 | Fares Benchmark 2013 | Fares Benchmark 2012 |
|---|---|---|---|---|---|---|---|
| 1 | Plaza/Arena | NOT MET | PASS | NOT MET | NOT MET | PASS | PASS |
| 2 | Southside Medical Shuttle | NOT MET | NOT MET | NOT MET | NOT MET | PASS | PASS |
| 20 | SFCC | PASS | PASS | PASS | PASS | PASS | PASS |
| 21 | West Broadway | PASS | PASS | PASS | PASS | PASS | PASS |
| 22 | Northwest Boulevard | NOT MET | PASS | PASS | PASS | PASS | PASS |
| 23 | Maple/Ash | PASS | NOT MET | NOT MET | NOT MET | PASS | PASS |
| 24 | Monroe | PASS | PASS | PASS | PASS | PASS | PASS |
| 25 | Division | PASS | PASS | PASS | PASS | PASS | PASS |
| 26 | Lidgerwood | NOT MET | PASS | PASS | PASS | PASS | PASS |
| 27 | Hillyard | PASS | PASS | PASS | PASS | PASS | PASS |
| 28 | Nevada | NOT MET | NOT MET | PASS | PASS | PASS | PASS |
| 29 | SCC | PASS | PASS | PASS | PASS | PASS | PASS |
| 32 | Trent/Montgomery | PASS | PASS | PASS | PASS | PASS | PASS |
| 33 | Wellesley | PASS | PASS | NOT MET | PASS | PASS | PASS |
| *34 | Freya | NOT MET | ***** | NOT MET | ***** | NOT MET | ***** |
| 39 | Mission | PASS | PASS | PASS | PASS | PASS | PASS |
| 42 | South Adams | PASS | PASS | NOT MET | NOT MET | PASS | PASS |
| 43 | Lincoln/37th Avenue | PASS | PASS | NOT MET | NOT MET | PASS | PASS |
| 44 | 29th Avenue | PASS | PASS | PASS | PASS | PASS | PASS |
| 45 | Regal | PASS | PASS | PASS | PASS | PASS | PASS |
| 60 | Airport via Browne's Addition | NOT MET | NOT MET | NOT MET | NOT MET | PASS | PASS |
| 61 | Hwy 2 via Browne's Addition | PASS | PASS | PASS | PASS | PASS | PASS |
| 62 | Medical Lake | NOT MET | NOT MET | PASS | PASS | PASS | PASS |
| 66 | Cheney/EWU | PASS | PASS | PASS | PASS | PASS | PASS |
| 68 | Cheney Local | PASS | PASS | NOT MET | NOT MET | PASS | NOT MET |
| 90 | Sprague | PASS | PASS | PASS | PASS | PASS | PASS |
| 94 | East Fifth/Millwood | NOT MET | NOT MET | PASS | PASS | PASS | PASS |
| 96 | Pines/Sullivan | PASS | PASS | NOT MET | NOT MET | PASS | PASS |
| 97 | South Valley | PASS | PASS | NOT MET | NOT MET | PASS | PASS |
| 98 | Liberty Lake via Sprague | PASS | PASS | NOT MET | NOT MET | PASS | PASS |
| 124 | North Express | NOT MET | NOT MET | PASS | NOT MET | PASS | PASS |
| 165 | Cheney Express | PASS | PASS | PASS | PASS | PASS | PASS |
| 173 | VTC Express | NOT MET | NOT MET | PASS | PASS | PASS | PASS |
| 174 | Liberty Lake Express | NOT MET | NOT MET | PASS | PASS | PASS | PASS |

*New route that began service in September 2013 (did not operate entire year)

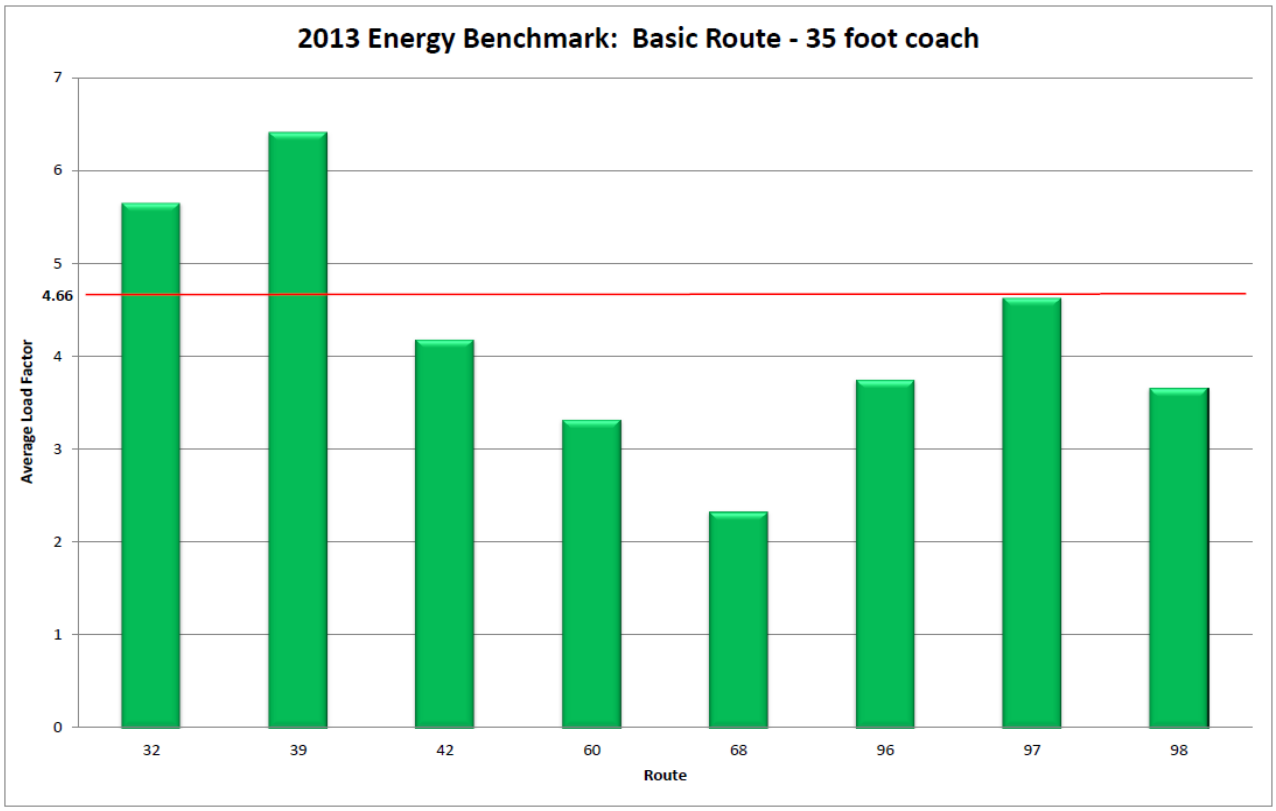
## 2013 Ridership Benchmark Charts

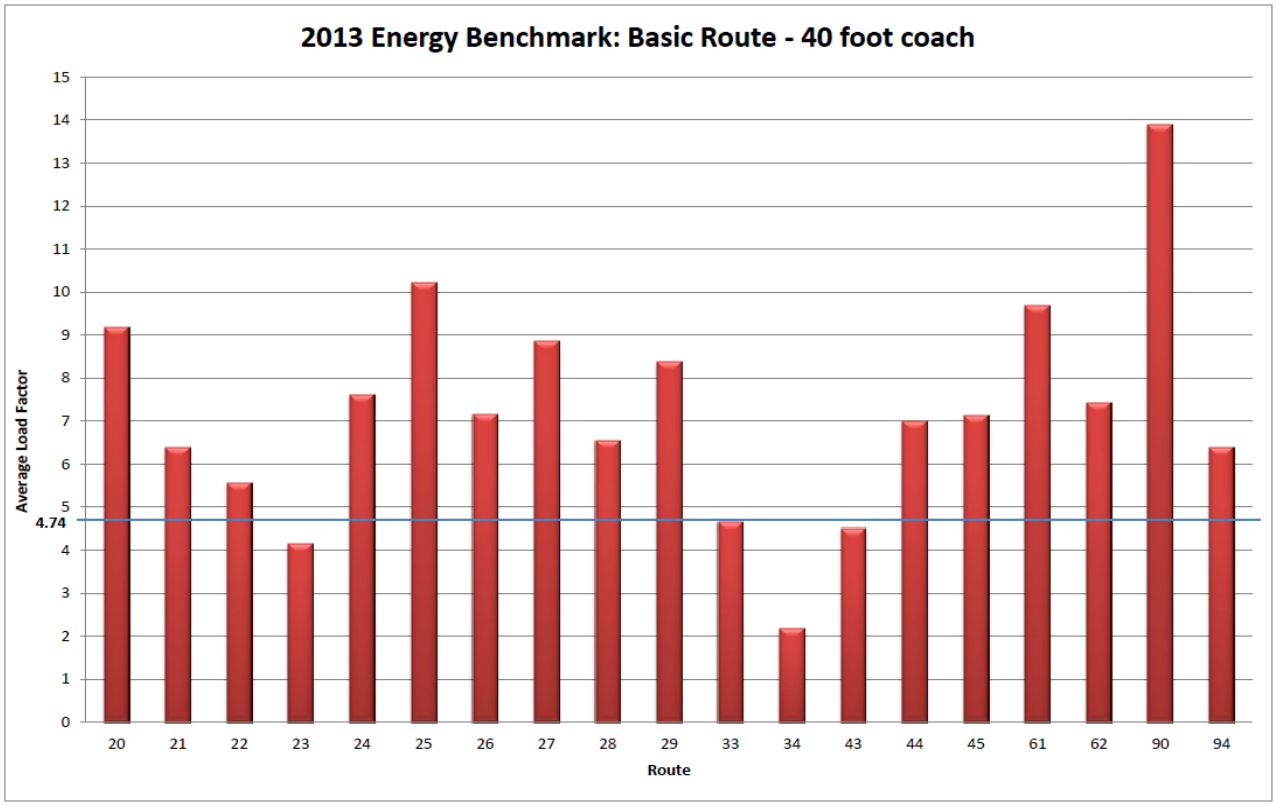


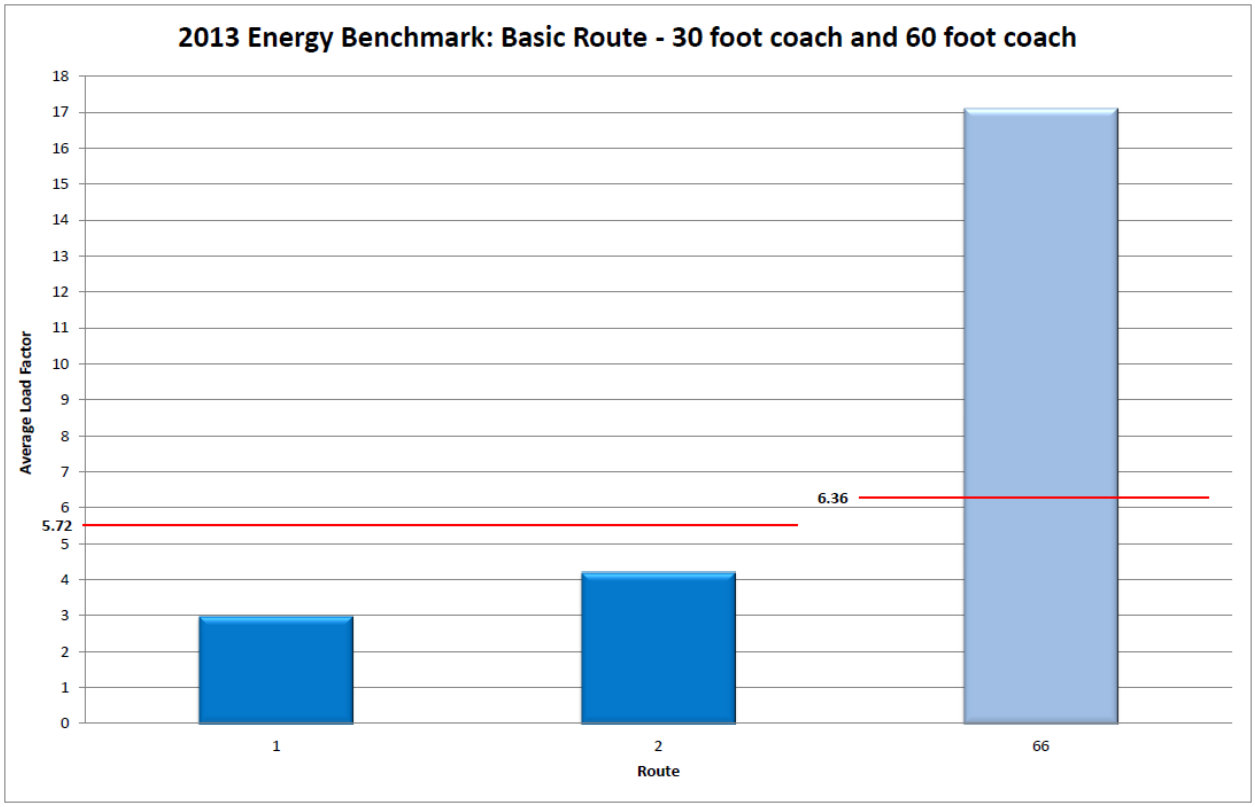



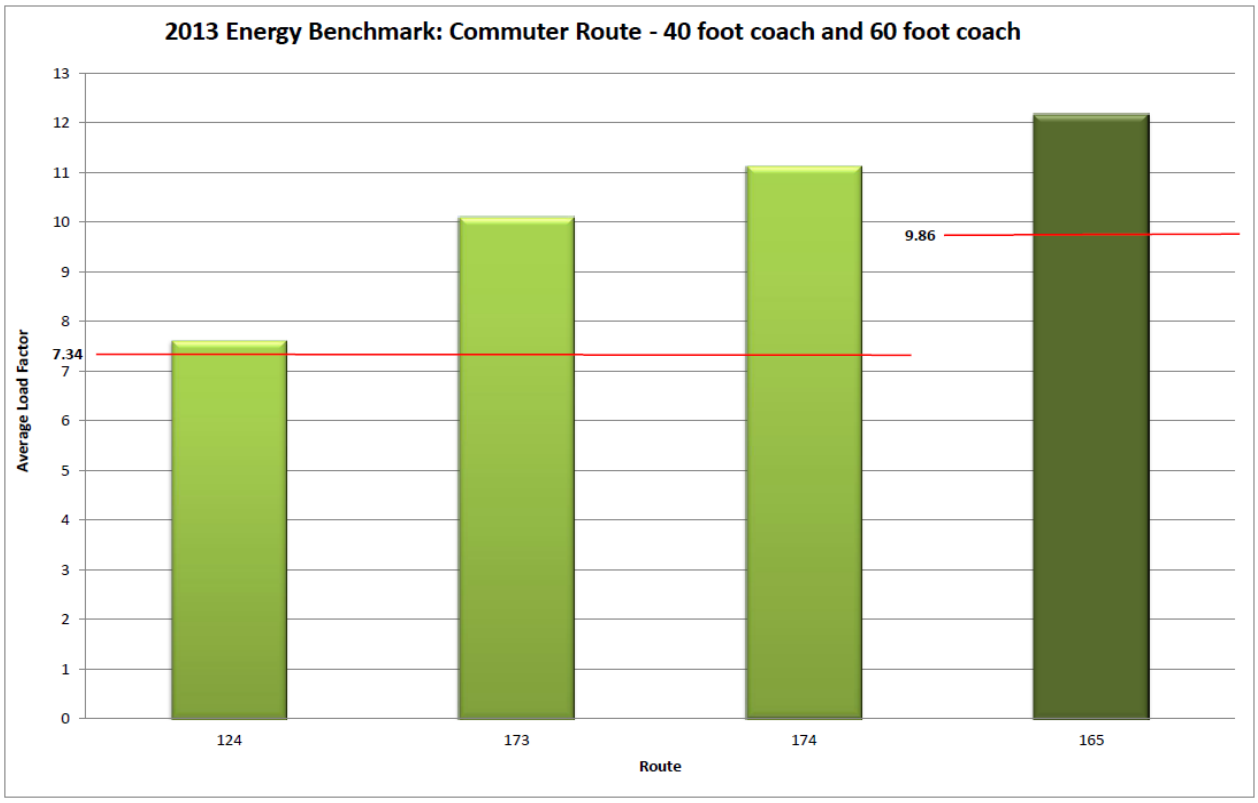

2013 Ridership Benchmark: Commuter Peak CBD Routes
Boardings Per Revenue Hour
35
30
25
20
15
10
5
0
33.52
11.17
165
124
173
174
Route

## 2013 Energy Benchmark Charts

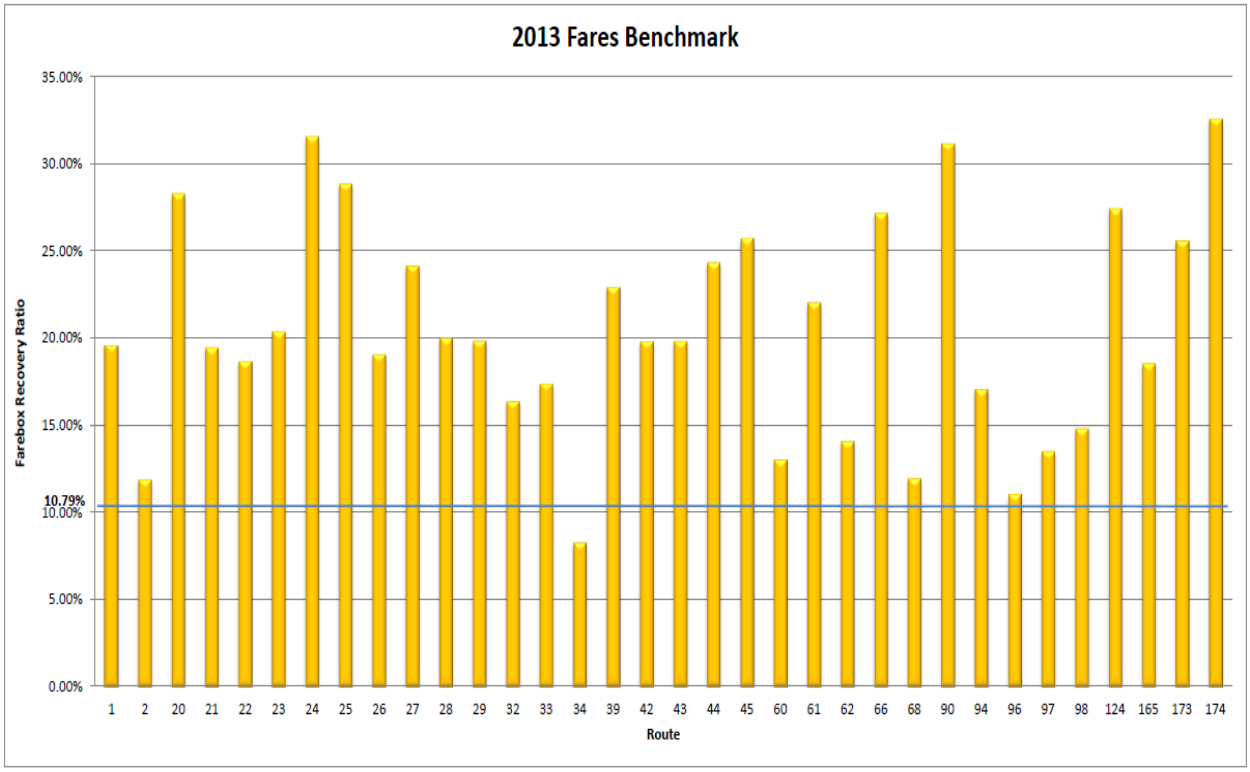



2013 Energy Benchmark: Basic Route - 30 foot coach and 60 foot coach
Average Load Factor
18
17
16
15
14
13
12
11
10
9
8
7
6
5.72
5
4
3
2
1
0
6.36
1
2
66
Route


2013 Energy Benchmark: Commuter Route - 40 foot coach and 60 foot coach
Average Load Factor
13
12
11
10
9
8
7.34
7
6
5
4
3
2
1
0
9.86
124
173
174
165
Route

## 2013 Fares Benchmark Chart



# Section II

## 2013 Average Weekday Boardings